

WHAT IS CLAIMED IS:

1. A method of retarding a combustible object from  
burning comprising the steps of:

- (a) providing an aqueous firefighting composition comprising a mixture of water and a superabsorbent polymer;
- (b) applying the firefighting composition to an exposed surface of the combustible object.

2. The method of claim 1, wherein the firefighting composition comprises about 0.001 % to 50% by weight superabsorbent polymer and water.

3. The method of claim 2, wherein the firefighting composition comprises from about 0.01 % to about 1 % by weight superabsorbent polymer and from about 99 % to about 99.99 % by weight water.

4. The method of claim 1, wherein the composition is in the form of a gel, and the superabsorbent polymer can absorb at least ten times its weight in water.

5. The method of claim 4, wherein the superabsorbent polymer can absorb at least twenty times its weight in water.

6. The method of claim 1, wherein the superabsorbent polymer comprises a cross-linked, water-insoluble acrylate polymer.

15 The method of claim 1, wherein the superabsorbent polymer comprises a polymer of an acrylic acid monomer.

16 The method of claim 1, wherein the superabsorbent polymer is selected from the group consisting of: a cross-linked polyacrylic acid; a cross-linked, partially neutralized polyacrylic acid; a cross-linked, fully neutralized polyacrylic acid; and mixtures thereof.

17 The method of claim 16, wherein the superabsorbent polymer comprises a polymerized, partially neutralized acrylic acid.

18 The method of claim 1, wherein the superabsorbent polymer comprise a sodium polyacrylate, neutralized about 75 mole%.

19 The method of claim 1, wherein the firefighting composition is stored in a pressurized tank before use.

20 The method of claim 1, wherein the firefighting composition is prepared by adding dry superabsorbent polymer to a flowing stream of water.

21 The method of claim 1, wherein the firefighting composition is prepared by applying superabsorbent polymer to a combustible object and then adding water to the superabsorbent polymer on said combustible object.

22 14. A method of protecting a person or object from increased temperature comprising applying a heat-resistant article of manufacture on an exposed surface of the person or object, said article of manufacture comprising a flexible fabric layer containing a superabsorbent polymer, said

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superabsorbent polymer comprising about 5% to 100% by weight of said dry article of manufacture, said superabsorbent polymer being at least partially hydrated with water.

*13* 15. The method of claim *14*, wherein the article protects a person from increased temperature and is applied over at least 20% of a surface area of the person, said article containing about 25% to 100% superabsorbent polymer, by weight, based on the dry weight of the article.

*14* 16. The method of claim *15*, wherein the article includes superabsorbent polymer fibers.

*15* 17. The method of claim *14*, wherein the article is formed from superabsorbent polymer fibers.

18. The method of claim *14*, wherein the superabsorbent polymer can absorb at least about ten times its weight in water.

*19* 19. The method of claim *14*, wherein the superabsorbent polymer comprises a cross-linked, water-insoluble polymer capable of absorbing at least about 50 times its weight in water.

20. An article of manufacture useful for shielding an object from heat, comprising a flexible fabric layer containing superabsorbent polymer.

21. The article of claim 20, including a pair of flexible fabric layers having a layer of superabsorbent polymer secured therebetween by structurally interconnecting the fabric layers.

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22. The article of claim 21, wherein the pair of fabric layers are structurally interconnected by needle punching the two fabric layers together through the intermediate layer of superabsorbent polymer.

23. The article of claim 20, wherein the flexible fabric includes superabsorbent polymer fibers.

24. The article of claim 20, wherein the fabric is woven or non-woven and is formed from superabsorbent polymer fibers.

25. The article of claim 20, wherein the superabsorbent polymer can absorb at least about ten times its weight in water.

26. The article of claim 20, wherein the superabsorbent polymer can absorb at least about twenty times its weight in water.

27. The article of claim 20, wherein the superabsorbent polymer comprises a cross-linked, water-insoluble polymer capable of absorbing at least about 50 times its weight in water.

28. The article of claim 20, wherein the superabsorbent polymer comprises a polymer of at least one acrylic acid monomer.

29. The article of claim 20, wherein the superabsorbent polymer is selected from the group consisting of: a cross-linked polyacrylic acid; a cross-linked, partially neutralized polyacrylic acid; a cross-linked, fully neutralized polyacrylic acid; and mixtures of any two or more.

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30. The article of claim 29, wherein the superabsorbent polymer comprises a partially neutralized polyacrylic acid.

31. The article of claim 30, wherein the superabsorbent polymer comprises a sodium polyacrylate, neutralized about 75 mole%.